

## Summer 2023 Sustainability Scholars Program Internship Opportunity

The UBC Sustainability Initiative (USI) is pleased to offer current UBC graduate students the opportunity to work on funded sustainability internship projects. Successful candidates work under the mentorship of a partner organization, and are immersed in real world learning where they can apply their research skills and contribute to advancing sustainability across the region.

- Visit the [Sustainability Scholars Program website](#) to learn [how the program works](#) and to [apply](#).
- Be sure to review the application guide on the Apply page to confirm your eligibility before applying.

**Applications close at midnight on Sunday January 29, 2023.**

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## Project title: Best practices research to inform climate resilient guidelines for design and operation of transit maintenance facilities

### **Project Background & Overview:**

TransLink released its first-ever Climate Action Strategy in January 2022. This document identified three pillars to address the climate emergency: climate mitigation; climate adaptation; and governance and funding. In December 2022, TransLink released its Climate Action Plan, which details the actions required to make the public transportation system more resilient to the effects of the changing climate. One of the actions identified is to develop a guideline to incorporate climate change adaptation into the design of transit operations facility and infrastructure (e.g., operations and maintenance facilities for maintaining, cleaning and refurbishing our SkyTrain (rail) and buses).

### **Project description**

TransLink's Climate Action Plan (endorsed by TransLink Board Dec 1, 2022) identifies actions TransLink will taken over the next three years to mitigate its impact on climate change and to adapt to the changing climate. One of the actions is to develop a "Transit Operations Facility and Infrastructure Climate Adaptation Design Guideline" for major renovations and new construction projects generally over \$50 million (e.g., Operations and Maintenance Centres, Transit Centres).

Before developing this Guideline, TransLink needs to understand best practices in the development, adoption and use of guidelines to aid planning, architecture and engineering disciplines when designing operations and maintenance facilities to be resilient to the effects of the changing climate (such as bus maintenance facilities or rail operations and maintenance centres) and reduce the risk climate change may have on our infrastructure.

As part of Transport 2050, the 10-Year Priorities, and the 10-Year Investment Plan, TransLink will be undertaking several major expansion projects and renovations over the next several decades. These projects will ensure infrastructure will meet the increased demand for transit. Many of these projects are non-customer facing and focus on operations and maintenance facilities or supporting infrastructure.

With many of these projects having life spans of 50 years or more, these projects need to consider that the climate in our region is projected to change. Winters will become wetter and milder in the

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fall/winter, summers will be warmer and drier, and all times of the year will face increased frequency and severity of extreme weather events. It is critical that TransLink's future facilities and infrastructure are designed and constructed in a manner to adapt to future climate norms and be resilient to extreme weather events.

As a result, TransLink needs to provide guidance to its engineering and design teams as well as external consultants as to how to design for climate change adaptation. In order to properly develop this guidance, TransLink needs to understand best practices that exist in the transit and transportation sector around the practical development and application of guidelines, policies and standards for design and engineering for climate change adaptation.

## **Project scope**

This project will involve:

- Research, including five to seven interviews/surveys, to identify
  - how other (five to seven) large infrastructure and asset owners have provided guidance, established standards, or policies to ensure climate change adaptation is successfully integrated into the planning, design and construction of new/major rehabilitation of infrastructure and facilities,
  - best practices in the development of guidelines, standards and policies,
  - key success factors in the ongoing application of guidelines, standards and policies
- Research to determine the role of professional associations, codes of conduct, and standards of care have in developing climate adaptation guidelines
- Establish two or three possible path forward options for TransLink for the development and ongoing application of either guidelines, standards, policies, or a combination thereof.

## **Deliverables**

- Regular (bi-weekly or monthly) progress meetings to discuss findings with TransLink
- A final report, 30-40 pages, containing a summary of the work completed (appendices extra)
- A final report for the online public-facing [Scholars Project Library](#).

## **Time Commitment**

- This project will take 250 hours to complete
- This project must be completed between May 1 to August 15, 2023
- The Scholar is to complete hours between 9 am and 5 pm, Monday to Friday, approximately 17 to 20 hours per week.

## **Required/preferred Skills and Background**

- Excellent research and writing skills
- Demonstrated interest in sustainability
- Experience conducting stakeholder engagement events, including facilitation skills, is an asset
- Familiarity with research methodologies and survey techniques
- Strong analytical skills
- Ability to work independently
- Deadline oriented
- Project management and organizational skills
- Comfortable interacting with strangers to conduct public/in person surveys

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- ☒ Experience/knowledge of the transit industry, including infrastructure, an asset
- ☒ Experience /familiarity reviewing and analysing policy, an asset

Applications close **midnight Sunday January 29, 2023**

Apply here: [Click here to apply](#)

Contact Karen Taylor at [sustainability.scholars@ubc.ca](mailto:sustainability.scholars@ubc.ca) if you have questions

## Useful Resources

We are holding a special **resume preparation workshop for prospective Scholars** on January 23, 2023. [Click here for details and to register.](#)

Below are some links to useful resources to help you with your resume and cover letter (there are many more online). Some of these resources also provide information on preparing for your interview.

<https://students.ubc.ca/career/career-resources/resumes-cover-letters-curricula-vitae>

<https://www.grad.ubc.ca/current-students/graduate-pathways-success>

<https://www.grad.ubc.ca/cover-letter-cv-resume-templates-ubc-career-services>